SERVO CIRCUIT HAVING A SYNCHRONOUS SERVO CHANNEL AND METHOD FOR SYNCHRONOUSLY RECOVERING SERVO DATA

Cross-reference to Related Applications

[1] This application is related to U.S. Patent Application Ser. Nos. 09/993877 (Atty. Docket No. 99-S-190 (1678-22-1)) entitled "DATA-STORAGE DISK HAVING FEW OR NO SPIN-UP WEDGES AND METHOD FOR WRITING SERVO WEDGES ONTO THE DISK," 09/993876 (Atty. Docket No.01-S-044 (1678-22-2)) entitled "CIRCUIT AND METHOD FOR DETECTING A SERVO WEDGE ON SPIN UP OF A DATA-STORAGE DISK", "09/993869 (Atty. Docket No. 01-S-047 (1678-22-3)) entitled "CIRCUIT AND METHOD FOR DETECTING A SPIN-UP WEDGE AND A CORRESPONDING SERVO WEDGE ON SPIN UP OF A DATA-STORAGE DISK", (Atty. Docket No. 01-S-023 (1678-39)) entitled "A DATA CODE AND METHOD FOR CODING DATA", 09/993868 (Atty. Docket No. 01-S-045 (1678-47)) entitled "CIRCUIT AND METHOD FOR DEMODULATING A SERVO POSITION BURST", 09/993799 (Atty. Docket No. 01-S-046 (1678-48)) entitled "CIRCUIT AND METHOD FOR DETECTING THE PHASE OF A SERVO SIGNAL", which were filed on the same day as the present application and which are incorporated by reference.

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BACKGROUND OF THE INVENTION

Field of the Invention

[2] The invention is related generally to electronic circuits, and more particularly to a servo circuit having a synchronous servo channel and a method for synchronously recovering servo data from a data-storage disk. Such a servo circuit allows the servo data to have a higher density than many prior servo circuits can tolerate. Increasing the density of the servo data often allows one to increase the disk area that is available for storing application data, and to thus increase the disk's storage capacity.

[3] As computer-software applications become larger and more data intensive, disk-drive manufacturers are continuing their efforts to develop technologies